

FIGURE 1

SOURCE

A* 11	B 11	A* 12	B 12	A* 13	B 13
D 11	C 11	D 12	C 12	D 13	C 13
A* 21	B 21	A* 22	B 22	A* 23	B 23
D 21	C 21	D 22	C 22	D 23	C 23
A* 31	B 31	A* 32	B 32	A* 33	B 33
D 31	C 31	D 32	C 32	D 33	C 33

DESTINATION

A 11	A 11	A 12	A 12	A 13	A 13
A 11	A 11	A 12	A 12	A 13	A 13
A 21	A 21	A 22	A 22	A 23	A 23
A 21	A 21	A 22	A 22	A 23	A 23
A 31	A 31	A 32	A 32	A 33	A 33
A 31	A 31	A 32	A 32	A 33	A 33

FIGURE 2

SOURCE

A 11	B 11	A 12	B 12	A 13	B 13
D 11	C 11	D 12	C 12	D 13	C 13
A 21	B 21	A 22	B 22	A 23	B 23
D 21	C 21	D 22	C 22	D 23	C 23
A 31	B 31	A 32	B 32	A 33	B 33
D 31	C 31	D 32	C 32	D 33	C 33

DESTINATION

X 11	X 11	X 12	X 12	X 13	X 13
X 11	X 11	X 12	X 12	X 13	X 13
X 21	X 21	X 22	X 22	X 23	X 23
X 21	X 21	X 22	X 22	X 23	X 23
X 31	X 31	X 32	X 32	X 33	X 33
X 31	X 31	X 32	X 32	X 33	X 33

FIGURE 3

SOURCE

A* 11	B 11	A* 12	B 12	A* 13	B 13
D 11	C 11	D 12	C 12	D 13	C 13
A* 21	B 21	A* 22	B 22	A* 23	B 23
D 21	C 21	D 22	C 22	D 23	C 23
A* 31	B 31	A* 32	B 32	A* 33	B 33
D 31	C 31	D 32	C 32	D 33	C 33

DESTINATION

A 11	A 11	A 12	A 12	A 13	A 13
A 11	A 11	A 12	A 12	A 13	A 13
A 21	A 21	A 22	A 22	A 23	A 23
A 21	A 21	A 22	A 22	A 23	A 23
A 31	A 31	A 32	A 32	A 33	A 33
A 31	A 31	A 32	A 32	A 33	A 33

FIGURE 4A

SOURCE

A 11	B* 11	A 12	B* 12	A 13	B* 13
D 11	C 11	D 12	C 12	D 13	C 13
A 21	B* 21	A 22	B* 22	A 23	B* 23
D 21	C 21	D 22	C 22	D 23	C 23
A 31	B* 31	A 32	B* 32	A 33	B* 33
D 31	C 31	D 32	C 32	D 33	C 33

DESTINATION

B 11	B 11	B 12	B 12	B 13	B 13
B 11	B 11	B 12	B 12	B 13	B 13
B 21	B 21	B 22	B 22	B 23	B 23
B 21	B 21	B 22	B 22	B 23	B 23
B 31	B 31	B 32	B 32	B 33	B 33
B 31	B 31	B 32	B 32	B 33	B 33

FIGURE 4B

SOURCE

A 11	B 11	A 12	B 12	A 13	B 13
D 11	C* 11	D 12	C* 12	D 13	C* 13
A 21	B 21	A 22	B 22	A 23	B 23
D 21	C* 21	D 22	C* 22	D 23	C* 23
A 31	B 31	A 32	B 32	A 33	B 33
D 31	C* 31	D 32	C* 32	D 33	C* 33

DESTINATION

C 11	C 11	C 12	C 12	C 13	C 13
C 11	C 11	C 12	C 12	C 13	C 13
C 21	C 21	C 22	C 22	C 23	C 23
C 21	C 21	C 22	C 22	C 23	C 23
C 31	C 31	C 32	C 32	C 33	C 33
C 31	C 31	C 32	C 32	C 33	C 33

FIGURE 4C

SOURCE

A 11	B 11	A 12	B 12	A 13	B 13
D* 11	C 11	D* 12	C 12	D* 13	C 13
A 21	B 21	A 22	B 22	A 23	B 23
D* 21	C 21	D* 22	C 22	D* 23	C 23
A 31	B 31	A 32	B 32	A 33	B 33
D* 31	C 31	D* 32	C 32	D* 33	C 33

DESTINATION

D 11	D 11	D 12	D 12	D 13	D 13
D 11	D 11	D 12	D 12	D 13	D 13
D 21	D 21	D 22	D 22	D 23	D 23
D 21	D 21	D 22	D 22	D 23	D 23
D 31	D 31	D 32	D 32	D 33	D 33
D 31	D 31	D 32	D 32	D 33	D 33

FIGURE 4D

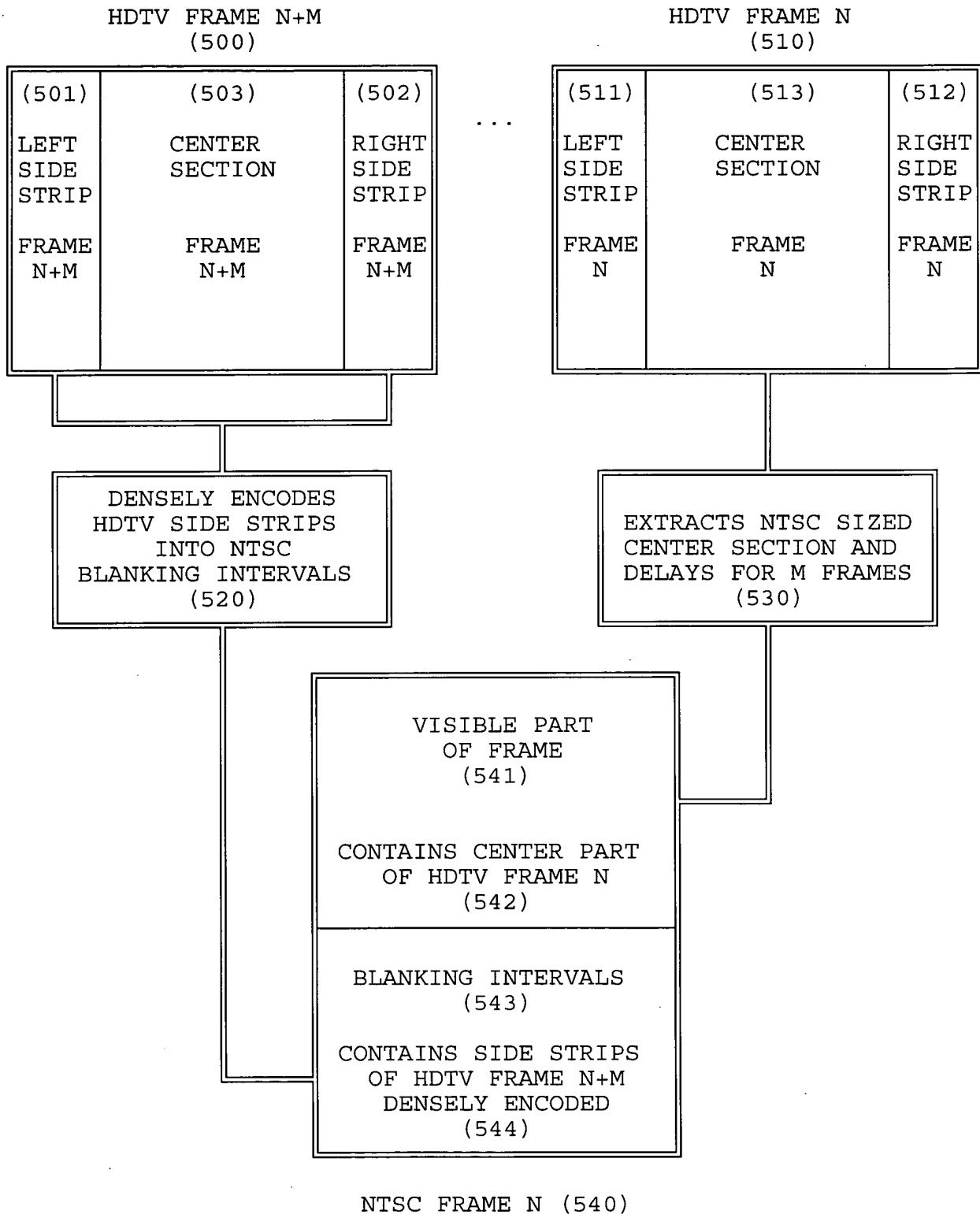


FIGURE 5

ENCODING OF HDTV "SIDE STRIPS" INTO NTSC BLANKING INTERVALS
WHICH MAY BE OF A PREVIOUS FRAME

NTSC FRAME N+M (600)

NTSC FRAME N (610)

VISIBLE PART
OF FRAME
(601)

CONTAINS CENTER PART
OF HDTV FRAME N+M
(602)

BLANKING INTERVALS
(603)

CONTAINS SIDE STRIPS
OF HDTV FRAME N+2M
DENSELY ENCODED
(604)

AT TIME N+M (620)

VISIBLE PART
OF FRAME
(611)

CONTAINS CENTER PART
OF HDTV FRAME N
(612)

BLANKING INTERVALS
(613)

CONTAINS SIDE STRIPS
OF HDTV FRAME N+M
DENSELY ENCODED
(614)

(630) AT TIME N

QUICK (641)
PASS-THROUGH
OF CENTER
SECTION N+M

SLOWER (642)
DECODE/STORE
SIDE SECTIONS
FOR N+M

NTSC TO
HDTV
DECODER
(640)

ASSEMBLY OF FULL WIDTH
HDTV FRAME N+M
(643)

(651)
LEFT
SIDE
STRIP
FRAME
M+N

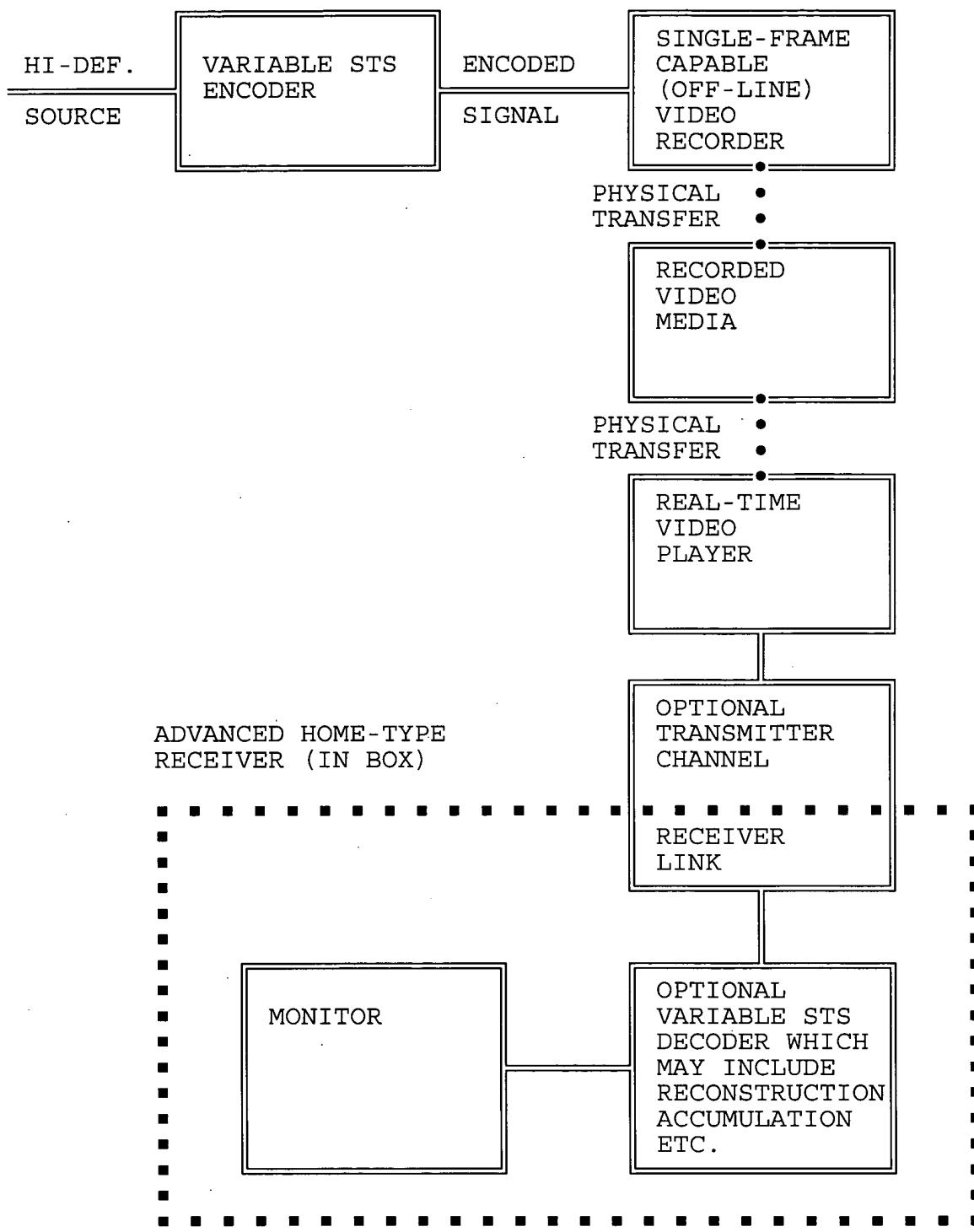
(653)
CENTER
SECTION
FRAME N+M

(652)
RIGHT
SIDE
STRIP
FRAME
N+M

HDTV FRAME N+M (650)

DECODING OF HDTV "SIDE STRIPS" FROM NTSC BLANKING INTERVALS
WHICH MAY BE OF PREVIOUS FRAME

FIGURE 6



OFF-LINE RECORDING AND REAL-TIME PLAYBACK/DELIVERY

FIGURE 7